

V. REMARKS

As mentioned in the Office Action, the Examiner did not consider the Japanese-language Japanese Patent Office Action dated January 4, 2005, that was filed with an Information Disclosure Statement on January 14, 2005. Applicants hereby file a Supplemental Information Disclosure Statement along with a partial English-translation of the Japanese Patent Office Action for consideration by the Examiner. This translation includes all of the pertinent aspects of this Office Action. It is respectfully requested that the Examiner consider this English-translation of the Japanese Patent Office Action filed with the attached Supplemental Information Disclosure Statement.

Claims 1-4 and 15 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Claim 1 are amended to obviate the rejection and claim 15 is canceled. Withdrawal of the rejection is respectfully requested.

Claims 1 and 15 are rejected under 35 U.S.C. 103(a) as unpatentable over Japanese Patent Application Publications 06-275543 to Okamoto et al. in view of U.S. Patent No. 6,468,387 to Ahn and U.S. Patent No. 5,595,606 to Fujikawa et al. The rejection is respectfully traversed.

Okamoto teaches a plasma generating device. An intermediate electrode 5 surrounds the periphery of a plasma space formed between a high-frequency electrode 4 and a grounded electrode 2 with a metal plate. The frequency and phase of the voltage applied across the intermediate electrode 5 from a high-frequency power source 51 are made coincident with the frequency and phase of the voltage applied across the electrode 4.

Ahn teaches an apparatus for generating an electromagnetic field in a processing chamber with the processing chamber having a ceiling, a floor, and a sidewall therebetween. The apparatus includes first, second, third and fourth electrodes, a power supply and a bias generator. The first electrode is opposite the second electrode and the third electrode is opposite the fourth electrode. The first, second, third, and fourth electrodes are equally spaced about the sidewall of the processing chamber. The power supply is configured to supply a

first signal having a first amplitude to the first electrode and a second signal having a second amplitude to the third electrode. The first amplitude does not equal the second amplitude. The bias generator is configured to supply a voltage to a wafer holder within the processing chamber.

Fujikawa discloses shower head having first and second passages for independently and respectively supplying first and second reaction gases. These gases are capable of reacting with each other in a process chamber.

Claim 1, as amended, is directed to an apparatus for forming a thin film. Claim 1 recites that a film-forming gas is supplied from a gas supplying device to a vacuum container which can be evacuated by an exhausting device to reduce gas pressure in the container and an electric power is applied from a power applying device to the film-forming gas to produce plasma from the gas in which a thin film is formed on an article to be film-covered disposed on a supporting member in the vacuum container. Claim 1 also recites that the gas supplying device includes a gas supply member having a gas supply surface portion with the gas supply surface portion being opposed to a film-forming surface of the article to be film-covered disposed on the supporting member in the vacuum container. Further, claim 1 recites that the power applying device includes a power applying electrode connected to a power source for forming the plasma and disposed in the vacuum container with the gas supply member being disposed in the vacuum container without connection to the power source and having a plurality of gas supply holes dispersedly formed at the gas supply surface portion. Additionally, claim 1 recites that the supporting member is grounded and the power applying electrode is disposed in a surrounding region around a space between the article to be film-covered disposed on the supporting member in the vacuum container and the gas supply surface portion of the gas supply member opposed to the article.

Furthermore, claim 1 recites that the exhausting device discharges a gas from a region in a vicinity of a periphery portion of the gas supply member and the power applying device includes 4 divided electrodes as the power applying electrode for applying the electric power and high frequency power sources each

connected to the divided electrodes, respectively with each of the divided electrodes being in a shape of a bent plate forming two electrode sections integrally connected substantially perpendicularly to each other, with the divided electrodes being disposed in a quadrilateral shape in a plan view surrounding the space between the article to be film-covered in the vacuum container and the gas supply surface portion of the gas supply member opposed to the article and with each divided electrode disposed adjacent an inner surface of vacuum container such that at least the gas supply member, the article to be film-covered and the supporting member are disposed internally of the quadrilateral shape.

It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 1 as amended. Specifically, it is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests that the exhausting device discharges a gas from a region in a vicinity of a periphery portion of the gas supply member and the power applying device includes four divided electrodes as the power applying electrode for applying the electric power and high frequency power sources each connected to the divided electrodes, respectively with each of the divided electrodes being in a shape of a bent plate forming two electrode sections integrally connected substantially perpendicularly to each other, with the divided electrodes being disposed in a quadrilateral shape in a plan view surrounding the space between the article to be film-covered in the vacuum container and the gas supply surface portion of the gas supply member opposed to the article and with each divided electrode disposed adjacent an inner surface of vacuum container such that at least the gas supply member, the article to be film-covered and the supporting member are disposed internally of the quadrilateral shape. Thus, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed invention. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claim 15 is canceled and therefore the rejection as applied thereto is now moot.

Withdrawal of the rejection is respectfully requested.

Claim 2 is rejected under 35 U.S.C. 103(a) as unpatentable over Okamoto in view of Ahn and Fujikawa as applied to claim 1 and further in view of U.S. Patent No: 5,422,139 to Fischer. The rejection is respectfully traversed.

Claim 2 is canceled and therefore the rejection as applied thereto is now moot.

Withdrawal of the rejection is respectfully requested.

Claim 3 is rejected under 35 U.S.C. 103(a) as unpatentable over Okamoto in view of Ahn and Fujikawa as applied to claim 1 and further in view of U.S. Patent No: 5,404,079 to Ohkuni and U.S. Patent No: 6,099,687 to Yamazaki. The rejection is respectfully traversed.

Claim 3 is canceled and therefore the rejection as applied thereto is now moot.

Withdrawal of the rejection is respectfully requested.

Claim 4 is rejected under 35 U.S.C. 103(a) as unpatentable over Okamoto in view of Ahn and Fujikawa as applied to claim 1 and further in view of Japanese Patent Application Publications 2001-189308 to Fujita et al. The rejection is respectfully traversed.

Fujita teaches a parallel plate plasma treatment device. A number of reaction gas supplying nozzles are attached to an upper electrode per unit area and can be changed in the plane of a wafer. As such, the in-plane uniformity of the film forming speed is improved by concentrically introducing the film-forming gas to an area where the film forming speed is slow.

It is respectfully submitted that claim 1 is allowable over Okamoto in view of Ahn and Fujikawa as discussed above. Further, it is respectfully submitted that Fujita fails to cure the deficiencies of Okamoto, Ahn and Fujikawa. As a result, it is respectfully submitted that claim 1 is allowable over the combination of Okamoto, Ahn, Fujikawa and Fujita.

Claim 4 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that claim 4 is allowable at least for the reason claim 1 is allowable as well as for the features it recites.

Newly-added claim 16 claims a driving device not shown in the applied art.

Further, Applicants assert that there are also reasons other than those set forth above why the pending claims are patentable. Applicants hereby reserve the right to submit those other reasons and to argue for the patentability of claims not explicitly addressed herein in future papers.

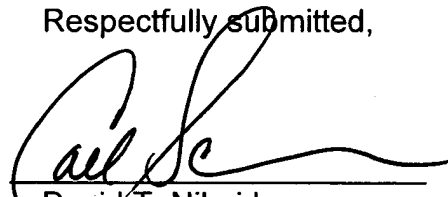
In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

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Enclosure(s): Amendment Transmittal
Supplemental Information Disclosure Statement
Partial English-translation of the Japanese Patent Office Action

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